

# A B S T R A C T

The device for reinitializing to a state  $|0\rangle$  a  
quantum bit device, or Qubit as it is otherwise known,  
5 having two states  $|0\rangle$  and  $|1\rangle$  associated with respective  
energy levels  $E_0$  and  $E_1$  where  $E_0 < E_1$  comprises first means  
(31, 32) for generating a temporary increase in the  
probability of the quantum bit device relaxing from the  
state  $|1\rangle$  to the state  $|0\rangle$  and second means (21) for  
10 absorbing the transition energy  $\Delta E_{01} = E_1 - E_0$  ceded by the  
quantum bit device when it relaxes from the state  $|1\rangle$  to  
the state  $|0\rangle$ . The device is applicable to Qubits having  
different physical media.